
**DIPLOMA IN EDUCATION/
DIPLOMA IN
PHYSICAL EDUCATION**

1992 – 93

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NANYANG TECHNOLOGICAL UNIVERSITY
NATIONAL INSTITUTE OF EDUCATION

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The information in this handbook is based on information available at the time of publication. The Institute reserves the right to make alterations without notice.

INTRODUCTION

The National Institute of Education offers diploma programmes leading to the award of the Diploma in Education and the Diploma in Physical Education. Both programmes are two-year full-time programmes meant for non-graduates who intend to teach.

NOTE

An exercise is underway to modularise courses in the programmes leading to the Diploma in Education and Diploma in Physical Education. The modular courses are targeted for implementation from the academic year 1992/93 and the detailed descriptions of courses given in this booklet may be modified when the exercise is completed.

PROCEDURE FOR APPLICATION

Applications for admission must be made on prescribed application forms obtainable from the Finance Division of NIE. The admission exercise is normally advertised in February/March for commencement of term in July the same year.

DATES OF TERMS

- Term 1 : 6 July 1992 – 12 September 1992
(10 weeks)
- Recess : 13 September 1992 – 27 September 1992
(2 weeks)
- Term 2 : 28 September 1992 – 5 December 1992
(10 weeks)
- Vacation : 6 December 1992 – 3 January 1993
(4 weeks)
- Term 3 : 4 January 1993 – 13 March 1993
(10 weeks)

DATES OF EXAMINATIONS 1992–93

- Main Examination : 1 March 1993 – 13 March 1993
- Supplementary Examination : 31 May 1993 – 12 June 1993

DIPLOMA IN EDUCATION PROGRAMME

Aims of the Programme

This teacher education programme is intended to train well-informed, competent and reflective teachers for primary schools. Such teachers will have an understanding of the key concepts and principles of teaching and learning. They will be able to talk about and defend their choice of various instructional approaches used in different learning contexts. They will be expected to discharge their professional responsibilities in the classroom and school in an effective and efficient manner.

The programme is designed to prepare the student-teacher to:

- (a) have the knowledge and skills to teach two to three primary school subjects,
- (b) be aware of and sensitive to the needs, interests and aptitudes of primary school pupils,
- (c) be able to teach creatively pupils of different abilities, interests and backgrounds,
- (d) be committed to the development of pupils placed in his/her charge, and
- (e) be committed to self-initiated and sustained professional development.

Entry Requirements

- (a) Minimum Requirements:

To be considered for admission, candidates should possess a Singapore-Cambridge GCE Advanced Level Examination Certificate or its equivalent with at least two advanced level passes and two ordinary advanced level passes obtained at one and the same examination.

(b) Special Requirements:

Candidates will be required to meet specific entry requirements to the two Academic Studies options. Those who intend to specialize in the teaching of the Second Language, Art or Music must have obtained a minimum requirement in the subjects of specialization at the advanced level or equivalent.

Structure of Programme

There are five components in the programme:

Academic Studies

Education Studies

Curriculum Studies

Specific Studies

Practicum

One version of the programme seeks to produce generalist teachers who can teach English, Mathematics and one other school subject at the primary school level (refer to Table 1). In Year 2 of this version, the student-teachers will be given the opportunity to focus on either Upper Primary or Lower Primary Teaching. Those who choose Lower Primary Teaching will take the course in The Teaching of Creative and Language Arts for Lower Primary as one of their curriculum subjects.

The other version of the programme provides for specialization in the teaching of a Second Language (Chinese, Malay or Tamil) at the lower and upper primary levels (refer to Table 2) or the teaching of Art or Music at the secondary school level (refer to Table 3).

Table 1: Structure of the Diploma in Education Programme (General)

A. Academic Studies

First Subject
Second Subject

B. Education Studies

Principles, Issues and Practice of Education (PIPE)

Two Electives from Theoretical Studies in Education to be chosen from:

- * History of Education/Comparative Education
- * Instructional Science
- * Philosophy of Education
- * Psychology of Education
- * Sociology of Education
- * Specialized Education

C. Curriculum Studies

Teaching of English
Teaching of Mathematics
Teaching of Science or Social Studies or Art or Music
Teaching of Creative and Language Arts for Lower Primary**

D. Specific Studies

Use of English in Teaching
Use of Technology in Education

E. Practicum

** Offered in Year Two for those specializing in Lower Primary Teaching.

Table 2: Structure of the Diploma in Education Programme (Specialization in Second Language)

A. Academic Studies

1st Subject
2nd Subject

B. Education Studies

Principles, Issues and Practice of Education (PIPE)

Two Electives from Theoretical Studies in Education to be chosen from:

- * History of Education/Comparative Education
- * Instructional Science
- * Philosophy of Education
- * Psychology of Education
- * Sociology of Education
- * Specialized Education

C. Curriculum Studies

Teaching of Chinese as a Second Language

or

Teaching of Malay as a Second Language

or

Teaching of Tamil as a Second Language

and

Teaching of Moral Education

D. Specific Studies

Use of Chinese Language or Malay Language or Tamil Language in Teaching

Use of Technology in Education

E. Practicum

Table 3: Structure of the Diploma in Education Programme (Specialization in Art or Music)

A. Academic Studies

1st Subject
2nd Subject

B. Education Studies

Principles, Issues and Practice of Education (PIPE)

Two Electives from Theoretical Studies in Education to be chosen from:

- * History of Education/Comparative Education
- * Instructional Science
- * Philosophy of Education
- * Psychology of Education
- * Sociology of Education
- * Specialized Education

C. Curriculum Studies

Teaching of Art
or
Teaching of Music
and
One Elective from:
Teaching of English
Teaching of Mathematics
Teaching of Science
Teaching of Social Studies

D. Specific Studies

Use of English in Teaching
Use of Technology in Education

E. Practicum

Academic Studies

In Year 1 and Year 2, the student-teacher is required to read two Academic Studies subjects from sixteen that are available. The subjects available are: Mathematics, Biology, Physics, Chemistry, Geography, History, English Language, English Literature, Chinese Language, Chinese Literature, Malay Language, Malay Literature, Tamil Language, Tamil Literature, Art, and Music. These subjects are designed to upgrade the student-teacher's academic foundation beyond the Advanced Level and to strengthen his/her understanding of the knowledge content.

Brief descriptions of the Academic Subjects are given in the following pages.

Course Title : Mathematics

The subject covers fundamental concepts in mathematics in the areas of logic and proof, number systems, set theory, algebra and statistics. The course aims to upgrade the student-teachers' mathematics content knowledge, their understanding of theories underlying processes in mathematics and the application of these processes.

Course Title : Biology

This subject focuses on four major areas: diversity of organisms, cell biology, general physiology and ecology. Course work is aimed at increasing the student-teachers' understanding of biological phenomena and concepts and providing training in the conduct and reporting of experiments and field studies.

Course Title : Chemistry

This subject focuses on three major areas: inorganic chemistry, physical chemistry and organic chemistry. It aims at providing student-teachers with a good understanding of chemical phenomena and concepts, training in the conduct and reporting of experiments, and an analytical approach to problem solving.

Course Title : Physics

The subject focuses on mechanics, thermal physics, optics, electricity and modern physics. It provides student-teachers with an understanding of physical phenomena and concepts, as well as the necessary training in the conduct and reporting of experiments. An analytical approach to problem solving will be used.

Course Title : Geography

This course deals with the fundamentals of physical and human geography. The physical component of the course focuses on the structure of the earth, the various processes that have shaped its configuration, the atmosphere that surrounds it and the mantle of vegetation. Man's role in relation to the environment will also be examined. In human geography the course will focus on the location, distribution and organization of various phenomena in space and society.

Course Title : History

This subject introduces student-teachers to the history of ancient civilisations and the contemporary history of East and Southeast Asia. It examines in depth the major trends and events of 19th and 20th century Singapore and Southeast Asia. It also traces and compares the emergence and historical development of Greco-Roman, Indian, Chinese and Japanese civilizations up to the end of the 15th century. Emphasis will be placed on the study and understanding of concepts like monarchy, the state, the role of the military and power.

Course Title : English Language

This course comprises two components. The first component covers these topics: the nature of language; linguistic change; languages and dialects; universal features of language; sound systems; writing systems; English grammar; dictionaries; the study of meaning; language and mind; language and society; and applications of language study.

In the second component, student-teachers will be given an introduction to descriptive phonetics and phonological theory. Other topics that will be dealt with

are: articulatory phonetics; organs of speech, identification and production of speech sounds; descriptions and classification of sounds; standard and non-standard pronunciation; and features of Singapore English.

Course Title : English Literature

This course comprises two parts: an introduction to literature and a study of poetry. The first part provides an introductory sampling of key texts in the development of English Literature. A range of texts in various genres will be presented for analysis. The texts for poetry will include pieces by Shakespeare, Blake, Keats, Hardy, Owen and Larkin. Fiction will consist of a classic English novel – Conrad’s Lord Jim – as well as a sampling from The Penguin Book of International Short Stories. In addition, a representative play by George Bernard Shaw will be examined. The second part is a critical survey of key poems from the Elizabethan Age to the contemporary era. The intention will be to enable student-teachers to acquire skills needed in analysing poems and the discrimination required for identifying the unique qualities of the poets surveyed.

Course Title : Chinese Language

This course aims to equip student-teachers with the knowledge and understanding of the nature of Chinese language and its functions in society. It will introduce student-teachers to a study of the grammar, phonetics, phonology, semantics of Chinese, sociolinguistics and psycholinguistics.

Course Title : Chinese Literature

This course aims to provide student-teachers with a broad knowledge of Chinese Literature. A brief history of Chinese literature and a selection of Chinese prose, poetry, drama, fiction and children’s literature will be included. The main emphasis is an understanding and critical appreciation of Chinese Literature.

Course Title : Malay Language

This course is designed to provide a foundation in Malay language and linguistics

for those specializing in the teaching of Malay at the primary school level. It comprises two main areas of study: introduction to general linguistics and the principles of Malay grammar. Student-teachers will be introduced to language study, grammar, phonetics and phonology, morphology, syntax and semantics. They are required to apply their knowledge of the systems of language in the analysis of Malay grammar.

Course Title : Malay Literature

This course is designed to provide a foundation in Malay literature for those specializing in the teaching of Malay at the primary school level. It comprises two main areas of study: introduction to classical Malay literature and introduction to modern Malay and Indonesian literature. The course will give the student-teachers an overview of Malay literature from the oral/folk period to the present. It is aimed at providing a broad grasp of the development of Malay literature through critical reading of selected works representing major periods of development.

Course Title : Tamil Language

This course is designed to develop the linguistic competence of the Tamil Language teacher who will teach at the primary school level. It is divided into two major areas of study: Tamil grammar and phonology and linguistics. The first component is intended to help the student-teacher acquire a strong foundation in functional Tamil grammar, viz. phonetics, morphology, morphophonemics and syntax. The second component will give student-teachers a broad view of linguistics and its use in the teaching of Tamil.

Course Title : Tamil Literature

This subject aims at providing a broad grasp of the development of Tamil literature through a critical reading of a selection of major works from 500 B.C. to the present. It comprises four components: poetry, drama, prose fiction, and children's literature. The course on children's literature extends the student-teachers' imaginative sympathy and understanding of children which is fundamental for their training as primary school teachers.

Course Title : Art

This subject introduces student-teachers to the disciplines of art and includes the study of art and design in their cultural, historic and social contexts. It also covers philosophy of art, art criticism, and procedures, and principles associated with art practice. Course work is structured to develop aesthetic awareness, and to stimulate creative responses to problems in art and design. Student-teachers will gain knowledge and experience about art and design, and the process for creative action. The subject provides a content base for art educational needs and a framework for further studies.

Course Title : Music

This course is designed to develop musicianship to an advanced level through practical work complemented by theoretical study. The course has four areas. Conducting and directing provides for practice in directing performance and rehearsal techniques. History of music will be studied through the analysis of set works and through listening abilities. Student-teachers will be trained in aural training to perceive, analyze and identify style, form and idiom in music. Composing and arranging entails the exploration of a variety of compositional techniques and the development of original work through individual guidance.

Education Studies

This component comprises two courses: Principles, Issues and Practice of Education (PIPE) which is offered in Year 1, and Education Studies Electives (ESE) which will be taken in Year 2.

Course Title : Principles, Issues and Practice of Education (PIPE)

This is a compulsory one-year foundation of education course. It seeks to equip students with a substantial grounding in the theoretical underpinnings of sound educational practice. The course provides for a broad coverage of topics from the four main sub-disciplines of education: history, psychology, philosophy and sociology of education. In the first component student-teachers are introduced to the historical and social context of educational development in Singapore while

topics in the psychology of education deal with the child and adolescent development, the nature of learning and factors such as self-concept, motivation, learning styles which affect it, teaching styles and strategies, and classroom management and discipline. The philosophy of education provides an analytical framework for examining the nature of education and teaching-learning processes. Topics in the sociology of education include the social factors which influence the school organization and curriculum, the relationship of the school and society, classroom processes, and educational differentiation.

Course Title : Education Studies Electives (ESE)

In Year 2, the student-teacher will be required to read **two** Education Studies Electives each of which should be from a different education sub-discipline. There will be a wide selection of elective courses offered under six course groupings: History of Education; Instructional Science, Philosophy of Education, Psychology of Education, Sociology of Education, and Specialized Education. The aim of these courses is to expose the student-teacher to an in-depth knowledge and treatment of two education sub-disciplines beyond the content covered in the Principles, Issues and Practice of Education course.

Course Grouping : History of Education/Comparative Education

Courses in this elective grouping deal with the history of educational ideas from Greco-Roman tradition to the rise of national systems, colonial educational policies in the Far East, post-war educational developments in Singapore, and the problems and issues in Singapore's educational system.

Course Grouping : Instructional Science

Courses in this elective grouping cover two broad areas within Instructional Science, namely, curriculum and instruction, and media and technology. Electives from curriculum and instruction will deal with curriculum and instructional design, theories of teaching and learning, teaching and learning styles, instructional development, evaluation, and classroom management for effective learning. Media and technology will deal mainly with the use of computers and the design and development of materials for instructional purposes.

Course Grouping : Philosophy of Education

Two elective courses will be offered under this grouping. Aims of Education introduces student-teachers to an analysis of the concept of education to bring out the implications as to the sorts of aims that are appropriate to it. It will be related to the transmission of knowledge and skills, involving cognitive, conative and affective aspects of the personality. The second course, Moral and Religious Education is an introduction to an analysis of the various components of moral learning that contribute to a holistic moral education. Religion will be analyzed to see what and how it can contribute to the components. The primary concern will be the nature of morality and religion and their interrelationship.

Course Grouping : Psychology of Education

Under the umbrella of Psychology of Education, there will be 12 elective courses covering four aspects of classroom teaching, namely, child/adolescent development; psychology of childhood and adolescence; testing, measurement and evaluation; and guidance and counselling. These electives have different foci and content bases which, though equally important, cater to the various needs and interests of student-teachers. Courses on childhood/adolescent development deal with the cognitive, social, moral and career development of children and adolescents, and the application of theories in teaching practice. Other courses on the psychology of childhood/adolescence link psychological theories to self-concept, mental health, motivation and learning. The testing courses focus on the measurement of cognitive development and the affective aspect of education. Courses on guidance and counselling cover areas such as pastoral care, group guidance, pastoral casework and career guidance.

Course Grouping : Sociology of Education

Courses in this elective grouping provide an understanding of educational processes from the vantage points of different sociological perspectives, namely, the functional, conflict and interactionist perspectives. Among the courses are the Introduction to the Sociology of Education, and the School Society courses. Key issues and topics covered are the origins and nature of mass schooling, the role of education in modern societies, the interrelationship of schooling with other societal institutions, the nature and organization of the curriculum, and the effects of social class, ethnicity and gender on learning and assessment processes.

Course Grouping : Specialized Education

Courses in this elective grouping introduce student-teachers to the psychology and education of young children with special abilities and needs. These courses deal primarily with the development of young children and with the basic concepts and facts about exceptional learners: definitions, causes, social, psychological and behavioural characteristics and educational approaches. Emphasis is placed on the important role the teacher plays in dealing with young learners and pupils who have a variety of learning and behavioural problems and needs in response to a continuing trend to provide education for them in a regular classroom environment so that they may develop to their fullest potential.

Curriculum Studies

The Curriculum Studies subjects are designed to equip the student-teacher with the skill needed to be effective teachers of these subjects in the Singapore primary school curriculum. The courses in each Curriculum Studies subject deal with the content, methods and techniques of teaching the respective subjects at the lower and upper primary school levels.

The Teaching of English and The Teaching of Mathematics are compulsory Curriculum Studies subjects for the student-teacher who is enrolled in the general version of the programme. The third Curriculum Studies subject can be chosen from four electives: The Teaching of Science, The Teaching of Social Studies, The Teaching of Art, or The Teaching of Music. In Year 2, the student-teacher will elect to specialize in teaching at the upper primary or the lower primary level. A compulsory course for those who specialize at the lower primary level is The Teaching of Creative and Language Arts for Lower Primary.

Those intending to specialize as Second Language teachers will be required to take **two** Curriculum Studies subjects: The Teaching of Chinese (or Malay or Tamil, as the case may be) as a Second Language, and The Teaching of Moral Education.

Those intending to specialize in Art or Music teaching in secondary school are required to take **two** Curriculum Studies subjects. The first of these must be either The Teaching of Art, or The Teaching of Music. The second Curriculum Studies subject can be chosen from the following electives: The Teaching of Science, The

Teaching of Social Studies, The Teaching of English, or The Teaching of Mathematics.

Course Title : The Teaching of English

This subject is designed to enable the student-teacher to teach English at the primary school level. It deals with both the theoretical constructs and pedagogical approaches to language teaching. Topics covered include language acquisition and development, literacy and reading, aural and oral skills, children's literature, remediation, formal and informal methods of assessment.

Course Title : The Teaching of Mathematics

This subject is designed to prepare the student-teacher to teach mathematics in primary schools. The content is organized around two themes. The Curriculum theme deals with the nature of mathematics, aims and objectives of the Singapore primary mathematics curriculum, the development of mathematical concepts and skills among primary pupils, and the use of various curriculum materials. The Methodology theme focuses on different teaching methods that will enable the student-teacher to achieve the aims of the mathematics curriculum. Ways of using information obtained from pupil evaluation in order to design learning activities to cater to the needs of pupils will also be covered.

Course Title : The Teaching of Science

This subject examines the nature and implementation of the primary science curriculum and covers the pedagogical principles of science instruction, the development of inquiry and problem-solving skills, the teaching of specific science topics as exemplars, and the assessment of cognitive and affective aspects of science learning in the primary school.

Course Title : The Teaching of Social Studies

This subject is designed to develop in the student-teacher the competency to teach social studies in the primary school. Course content deals with the aims of social

studies, the social studies curriculum in the primary school, strategies for instruction and evaluation, the development of thinking and inquiry skills, and the selection and utilization of resources for teaching different ability groups of pupils.

Course Title : The Teaching of Chinese (Specialization in CL2)

This course is designed to prepare the student-teacher to teach Chinese both as a first and a second language at the primary and preparatory levels. Course content includes the CL2 syllabus, the teacher's role in lesson planning and classroom management, teaching Chinese character writing and the four language skills, language testing, the development of teaching materials and remedial teaching, and modern Chinese grammar.

Course Title : The Teaching of Malay (Specialization in ML2)

This subject is designed to prepare student-teachers to teach Malay as a mother-tongue or 2nd language at all three formal stages of primary schooling (preparatory, foundation and orientation stages). It deals with both the theoretical constructs and pedagogical approaches to language teaching. Topics covered include language acquisition and learning, the school curriculum and the Malay Language syllabus, the use of Malay in teaching, the teaching of reading, speaking, listening, writing, grammar and vocabulary; language assessment, the development of teaching materials, remedial teaching and children's literature.

Course Title : The Teaching of Tamil (Specialization in TL2)

This subject is designed to prepare the student-teacher to teach Tamil as a mother-tongue or 2nd language at all three formal stages of primary schooling (preparatory, foundation and orientation stages). The course deals with various theoretical approaches to language acquisition and learning, the school curriculum and the Tamil Language syllabus, Tamil teaching methodology, Tamil grammar, oral communication, the teaching of listening, speaking, reading and writing, language assessment, the development of teaching materials, micro-teaching and remedial teaching.

Course Title : The Teaching of Moral Education (Chinese/Malay/Tamil Medium)

This subject is designed to prepare the student-teacher to teach moral education at the primary school level using either Chinese, Malay or Tamil as the medium of instruction. The course content deals with the historical background to moral education in Singapore, the approaches and methodology in the teaching of moral education, concepts and core values in Good Citizen, core and shared values across different cultures, and the conduct of moral education through the school environment.

Course Title : The Teaching of Art

This subject is designed to familiarize the student-teacher with the content and methodology of art education in the primary school. Course contents will focus on the artistic development of young children, the role of the primary school art teacher, art in the school curriculum, art resources, and an exploration of art and craft activities that are relevant to the school art environment.

Course Title : The Teaching of Music

This course is designed to equip the student-teacher with the content and method of music education in the primary school. It includes five subjects: the music curriculum and the instruments, the music curriculum and the voice, the music curriculum and listening, music literacy and the active approach to music making, and the music curriculum in Singapore primary schools. Also covered are teaching techniques and evaluation in music.

Course Title : The Teaching of Creative and Language Arts for Lower Primary

This course prepares the teacher of pre- and lower primary pupils to provide integrated experiences which foster a child's natural spontaneity and vivacity and to mould this into a means for expression and consolidation of feelings, attitudes, skills and knowledge into appropriate responses. The requirement is for students to plan, organise, implement, and guide developmentally appropriate experiences. More specifically this course is designed to enable students to:

- (a) be knowledgeable about aspects of young children's understanding, and expressive development,
- (b) develop skills in order to observe, record, and appraise the educational needs of young children in integrated settings,
- (c) appreciate the need for understanding the processes which children naturally use to give messages, signals, and ideas and the importance of building on such developing competencies in their educational provision, and
- (d) begin to plan developmentally appropriate learning experiences which foster creative abilities from skills involved in rhythmical and musical activities, dramatic play activities, representational activities in the visual arts, language and literature.

Course Title : The Teaching of Music (Specialization in Music Education)

This course prepares the student-teacher who wishes to specialize in the teaching of music at primary and secondary school level. It provides an in-depth study and training in the essential areas that will help the student-teacher to attain high standards in music education. A balance between performance, repertory and music creativity is maintained within the course, and also between curricular and extra-curricular activities.

Course Title : The Teaching of Art (Specialization in Art Education)

This subject prepares the student-teacher who wishes to specialize in the teaching of art and provides the content and methodology of teaching the subject in the primary and secondary school. It provides an introduction to specific art forms that lay the foundation for visual perception, understanding of concepts, the development of ideas, skill acquisition, and appreciation of the creative process and product. Through involvement in two-dimensional and three-dimensional art making, the student-teacher will learn the rudiments of drawing and painting, pattern and design, print-making, visual communications, handicrafts and art appreciation in the primary and secondary school.

Specific Studies

Student-teachers are required to undertake **two** Specific Studies courses: Use of English **or** Chinese **or** Malay **or** Tamil in Teaching, and Use of Technology in Education.

All student-teachers who will be teaching subjects in the English medium will take the Use of English in Teaching course. Those who are in the Second Language Specialization Programme will take the course that relates to their language medium. The Use of Technology in Education course is compulsory for all student-teachers.

Course Title : Use of English in Teaching (UET)

This course involves the study of basic speech skills, classroom communication and written communication. Student-teachers will be required to develop effective and accurate communication skills that are necessary for the various professional roles that they assume as teaching staff in school.

Course Title : Use of Malay in Teaching

This course is designed to help student-teachers develop effective and accurate communication skills that are necessary for the various professional roles that they assume as teachers of Malay as a second language in the primary school. It will include phonetics to help student-teachers acquire accuracy in pronunciation and communication skills in the classroom.

Course Title : Use of Chinese in Teaching

The course is designed to provide student-teachers with competence in oral communication. It deals with phonetics, speech skills and effective classroom communication. Hanyu Pinyin intonation and the use of four tones will be included to enable student-teachers to speak standard Mandarin and to communicate effectively with pupils in classroom situations.

Course Title : Use of Tamil in Teaching

This course is designed to help student-teachers develop effective and accurate communication skills that are necessary for the various professional roles that they assume as teachers of Tamil as a second language in the primary school. It will include phonetics to help student-teachers acquire accuracy in pronunciation and communication skills in the classroom.

Course Title : Use of Technology in Education

This course is aimed at providing student-teachers with a theoretical and practical understanding of the design, development, selection, evaluation and integration of appropriate media and materials in instruction. It also allows them to explore the use of computers in the teaching-learning process. Besides lectures and tutorials, workshops, demonstrations and group activities will be an integral component of the course.

Practicum

The Practicum is an integral component of the Diploma in Education Programme as it is designed to facilitate the student-teacher's acquisition and mastery of basic teaching skills, appropriate attitudes and values, and the development of a high degree of professionalism. Both micro-teaching and actual practice-teaching in primary school classrooms will be employed to enable the student-teacher to consciously apply educational principles and concepts to planned teaching activities.

The student-teacher will have the opportunity to observe and practise-teach pupils in the lower and upper primary classes in a primary school in Year One. By Year Two, he will be required to work more intensively with either the lower primary or the upper primary level. The Practicum also seeks to expose the student-teacher to the multi-faceted role of the teacher in the school and classroom settings. It does this by highlighting the variety of teaching-learning tasks that take place at different points of the school calendar.

Assessment of Course Work and Teaching Practice

Different modes of assessment have been built into the courses. These include examinations, tests, project work and progress ratings. In the event that the student-teacher fails in any of the courses, he may be allowed to sit for at most one re-examination in the course. Student-teachers must complete satisfactorily all the courses they are required to take before qualifying for the award of the Diploma in Education. Under normal circumstances, no candidate will be permitted to take more than three years to complete the programme of study and pass the examination for the Diploma in Education.

Talks, Seminars, Workshops and Other Activities

During the period of training, student-teachers are expected not only to study diligently but also to participate actively in talks, seminars, workshops and other activities organized for them, such as the series of lectures on Total Defence, Healthy Lifestyle and Civil Defence. There will be an Orientation Programme, a Pre-Attachment Seminar preceding the Practicum, and an Induction Seminar held at appropriate points of the Diploma in Education Programme.

DIPLOMA IN PHYSICAL EDUCATION PROGRAMME

Aims of the Programme

The Diploma in Physical Education programme seeks to:

- (a) develop professional competence and expertise in teaching Physical Education as a major subject,
- (b) enable student-teachers to follow an academic and knowledge-based approach to the subject area of Physical Education,
- (c) train student-teachers to teach English and/or Mathematics at primary schools or a second subject at the lower secondary school level, and
- (d) give student-teachers a grasp of the psychological, sociological and philosophical principles essential to an understanding of the teaching process.

Entry Requirements

To be considered for admission, candidates should possess a Singapore-Cambridge GCE Advanced Level Examination Certificate or its equivalent with at least two advanced level passes and two ordinary advanced level passes obtained at one and the same examination. In addition, a pass in the 'O' Level Mathematics is required.

In addition, candidates will need to demonstrate an interest and ability in Physical Education and Sports: a practical assessment will form part of the admission procedure.

Structure of Programme

The programme has 5 components:

Academic Studies

Education Studies

Curriculum Studies

Specific Studies

Practicum

The structure of the programme is shown in Table1.

Table 1: Structure of the Diploma in Physical Education Programme

A. Academic Studies

First Subject:
Physical Education
– Scientific Aspects
– Psychosocial Studies
Second Subject

B. Education Studies

Principles, Issues and Practice of Education (PIPE)

C. Curriculum Studies

Physical Education Curriculum and Teaching Methods

Physical Activities:
Movement Education/Dance/Gymnastics
Fitness and Conditioning
Games
Track and Field
Swimming
Outdoor Education

Teaching of English or
Teaching of Mathematics or
Teaching of a Secondary School academic subject

D. Specific Studies

Use of English in Teaching
Use of Technology in Education
Measurement and Evaluation
Health Education

E. Practicum

Course Descriptions

Academic Studies

The student-teacher is required to read Physical Education and one other Academic Studies subject which may be chosen from among those listed in pages 8 and 9 of this booklet.

The descriptions of the courses in Physical Education are given below.

Course Title : Physical Education – Scientific Aspects

The scientific aspects of the academic studies of Physical Education are: biological bases; growth and development; exercise physiology; acquisition of skill and psychological aspects of teaching and coaching; biomechanical elements of sports activities and measurement and evaluation.

Course Title : Physical Education – Psychosocial Studies

The other aspects of the academic studies deal with the contribution of Physical Education to the needs of society through studying historical, socio-cultural and comparative aspects and analysing physical education and sports models of selected countries.

Education Studies

Course Title : Principles, Issues and Practice of Education (PIPE)

The description of this course can be found in pages 12 – 13 of this booklet.

Curriculum Studies

In this component, in addition to Physical Education Curriculum & Teaching Methods and Physical Activities, the student-teacher has to take a course in The Teaching of English or The Teaching of Mathematics or The Teaching of a

secondary school subject. The course descriptions for The Teaching of English and The Teaching of Mathematics can be found in page 16. The descriptions of the other courses are given below.

Course Title : Physical Education Curriculum and Teaching Methods

Planning the curriculum, its content, objectives and evaluation, recent changes in the curriculum and teaching methods. The Physical Education Department in schools – its role organisation and function. Lesson preparation and lesson management will be studied by considering lesson objectives, contents, teaching styles and methods, teacher pupil relationships and standards.

Course Title : Physical Activities

The content covers Basic Movement for Games, Team and Dual Sports; Movement Education; Dance and Gymnastics; Track and Field; Outdoor Education and Fitness and Conditioning. The accent is on ensuring that all student-teachers experience and learn to teach a range of activities. The Primary Programme is similar to that indicated above but the theoretical and practical courses are designed to meet the needs of the primary teachers and their prospective students. Less emphasis is placed on major adult games and activities and more on the development of motor patterns and activities. This will be done by focusing on:

- a the techniques and tactics of specific activities with teaching progressions, support, safety and performance in relation to growth and development as integral aspects of all lessons, and
- b class organisation and management with a view to effective, efficient and safe teaching. Ability to demonstrate technical skills will be regarded as an essential element in the teacher's performance.

Course Title : The Teaching of English in Secondary Schools

This course deals with the teaching of the English Language in secondary schools. It is based on specific ways of teaching reading, oral skills, writing for different purposes, grammar and vocabulary. Apart from reviewing major approaches such

as the communicative and the integrated language teaching approaches, the course aims to prepare student-teachers for their future roles as classroom planners, communicators, facilitators and managers of learning through participation in various tasks and at different levels. Student-teachers are expected to take an active part in workshops and in micro-teaching and simulated teaching sessions.

Course Title : The Teaching of Literature in English

The course deals with the teaching of Literature in English in secondary schools. The focus will be on the aims of teaching literature and the ideas, methodologies and activities designed to realize these aims in the teaching of the short story, novel, poetry and drama. Language-based and reader-response approaches will be highlighted in the course. Student-teachers will be required to participate in micro-teaching sessions to practise specific skills through role-playing. In addition, they will be required to write assignments based on their reading and actual teaching experience. The stress is on making literature activity-oriented so that pupils in schools will develop a love for reading through literature.

Course Title : The Teaching of History

The course is essentially a fusion of the general principles and practice of education and teaching methods in History. A task-oriented approach will attempt to integrate theory and practice.

The relevant tasks to be undertaken will include preparing schemes of work, examining and choosing content, deciding on relevant methods and strategies, planning and carrying out field trips, designing games and simulations, constructing and evaluating test items and drawing up marking schemes.

Course Title : The Teaching of Geography

The purpose of this course is to equip student-teachers with the theoretical knowledge and skills essential to function as geography teachers in secondary schools and junior colleges. To achieve this goal, student-teachers will be exposed to a variety of teaching strategies that will enable them to operate effectively in

classroom situations as well as in field settings. Lectures and discussions will focus on the aims and objectives of geography teaching and the psychological principles which underpin the selection and application of teaching methods. The course will also include practical tasks like analysing the geography syllabus, planning units of instruction, selecting media, and designing items for assessment. In addition student-teachers will be required to practise teaching under simulated conditions and participate in field trips locally and outside of Singapore.

Course Title : The Teaching of Physics

The course will prepare student-teachers for teaching Physics at the upper secondary and junior college levels as well as Science at the lower secondary level. It will emphasise the professional development of the teacher and acquaint him with the necessary skills to effectively teach the concepts and processes of Physics to his pupils. Appropriate emphasis will be given to the teaching of Physics to different ability groups.

Course Title : The Teaching of Biology

This course will prepare student-teachers for teaching Biology at upper secondary and junior college levels, as well as Science at lower secondary level. It will focus on up-to-date methods of teaching Biology, including field trips to enhance awareness of the environment. Emphasis will be given to the professional development of the teacher and to the necessary skills for effective teaching of the concepts and processes of Biology to pupils of different abilities.

Course Title : The Teaching of Chemistry

The course will prepare student-teachers for teaching Chemistry at the upper secondary and junior college levels as well as Science at the lower secondary level. It will deal with skills in imparting the concepts and processes of Chemistry to provide student-teachers with knowledge of up-to-date methods of teaching Chemistry/Science. Due emphasis will be given to the teaching of Chemistry to different ability groups and the various roles of the teacher in the classroom and in the laboratory.

Course Title : The Teaching of Mathematics in Secondary Schools

This course is designed to prepare student-teachers to teach Mathematics in secondary schools and junior colleges. It will follow an integrated, thematic approach along three main themes: (a) knowledge of mathematics (with reference to content, concepts and skills), (b) knowledge of the pupil (with reference to the psychology of learning mathematics, the nature of pupils' difficulties, and the needs of pupils with different abilities and aptitudes), and (c) knowledge of teaching methods (with reference to techniques, strategies, activities, resources, the use of calculators and micro-computers, and the development of evaluation and assessment techniques). The course will be organised by topic areas and practical tasks and activities will be structured within each area. Micro-teaching sessions will be provided for student-teachers to practise teaching skills and approaches.

Specific Studies

For descriptions of the courses entitled **Use of English in Teaching** and **Use of Technology in Education**, please refer to pages 20 and 21. The courses in **Measurement and Evaluation** and **Health Education** are described below.

Course Title : Measurement and Evaluation

This is an introductory course of measurement and evaluation which presents the fundamental concepts and the reasoning that underlie the use of some of the descriptive statistical techniques in Physical Education.

Course Title : Health Education

The two objectives of this course are to ensure that the student-teachers have an understanding of health concepts that relate to their personal lives and to provide them with relevant materials and information for the teaching of Health Education in the schools.

Practicum

This is a major component of the programme. Students will spend 15 weeks in schools during the two years teaching Physical Education and their second subject. It is in this part of the course that students will initiate and develop their practical skills in teaching at different levels with the help of their cooperating teachers and supervisors.

Assessment of Course Work and Teaching Practice

Different modes of assessment have been built into the courses. These include examinations, tests, project work and progress ratings. In the event that the student-teacher fails in any of the courses, he may be allowed to sit for at most one re-examination in the course. Student-teachers must complete satisfactorily all the courses they are required to take before qualifying for the award of the Diploma in Physical Education. Under normal circumstances, no candidate will be permitted to take more than three years to complete the programme of study and pass the examination for the Diploma in Physical Education.

Talks, Seminars, Workshops, Camp and Other Activities

During the period of training, student-teachers are expected to participate actively in talks, seminars, workshops and other activities organized for them, such as the series of lectures on Total Defence, Healthy Lifestyle and Civil Defence. There will be an Orientation Programme, a Pre-Attachment Seminar preceding the Practicum, and an Induction Seminar held at appropriate points of the Diploma in Physical Education Programme. In addition, all Year 1 students are to attend an 8-day camp organised by NIE at the Outward Bound Singapore, Pulau Ubin.